SUMMARY CONCLUSIONS AND RECOMMENDATIONS

SUMMARY

The purpose of this study was to investigate the response of exercise and certain yogic practices programme on the health related physical fitness and to assess their effectiveness. The study was delimited to male subjects of age group 20 to 25 years. The study was also delimited by certain yogic practices; it includes specific yogic practices, pranayama and yognidra. The study was further delimited to certain exercise. It was delimited to certain health related physical fitness, variation in the ability of the individual to perform yogic practices and exercise and secondly variation in age group.

Eighty subjects of B.P.Ed and B.B.A class students of Jai Narayan P.G. College Lucknow (KKC) were selected for the study. The average age of subjects will be 20 years. The subjects were divided into four groups. Experimental group A, B and C and control group D. The each group of 20 subjects. The subjects were equated before collecting the data.

Functional capacity of following sensory organs eyes, vestibular apparatus and kinesthetic receptors were not tested due to lack of testing devices. Keeping in view the objectives of the study following hypotheses were formulated It is hypothesized that yogic and exercise
programmes would significantly improve the health related physical fitness.

1. It is hypothesized that yogic programme would be more effective than exercise programme in the health related physical fitness.

2. It is further hypothesized that a combined exercise yogic programme would be more effective in health related physical fitness than the individual programmes of yoga and exercise.

The experiment was conducted for a period of 12 weeks as excluding the period required for measurement in the criterion measures, beginning and ending within the experimental period. The experiment group A did 12 yogic practices and pranayams. The experimental group B did exercise programme combined. The control group ‘D’ followed the daily routine. The performance of all subjects of AAPHERD Health Related Physical Fitness Test was recorded prior and after the experimental period.

The AAPHERD Health related physical fitness test contains four items intended to assess an individual’s status on three components of health related physical fitness, brief statements indicating the reasons for their selection and the test items chosen to
represent them. It intends to assess an individual’s three components of health related physical fitness namely cardiorespiratory function, body composition (leaness/Fatness) and abdominal and low-back musculo-skeletal function. This test included the following four test items -

(i) Cardiorespiratory function test - 9 minute run walk

(ii) Body composition (leanness/fatness)


(iv) Modified sit-ups

The experiment was conducted for a period of twelve weeks excluding the period required for measurement, in the criterion measure beginning and ending within of the experimental period.

The experimental group ‘A’ did 12 yogic practices programme as given below:

*Srishasana, Sarvangasana, Matsyasana, Halasana, Bhujangasana, Salbhasana, Dhanurasana, Aradhamatsyandrasana, Pachimotana, shavasana, Kapal Bhati, Anlom vilom*

The experimental group ‘B’ did 10 exercises programme as given below:
Summary, Conclusions and Recommendations

Spinal Rock, Back over, Side stretcher, Alternative prone lift, one leg jumping, Line walking after front roll, 5 meters dash, raising the hands with folded hands, walking on hands with partner and Stride stretcher. The experimental group ‘C’ did exercise and yogic practices programme combined. The experimental group practiced 6 days in a week.

The whole training programme for the experimental group ‘A’, ‘B’ and ‘C’ was carefully and systematically planned. The experimental groups ‘A’, ‘B’ and ‘C’ underwent the training programme on yogic practices, Exercises and the combined respectively under the guidance of three assistants at the same place and time under careful supervision of the research scholar for a period of twelve weeks in the 6 day week. The objective reflected exactly what was expected of the subjects after going through the training programme.

The control group ‘D’ was not allowed to undergo the training programme.

The subjects were assigned to four groups by random sampling procedure as suggested by Robert and James (1969). Training programme for experimental groups ‘A’, ‘B’ and ‘C’ consisted of
yogic practices, exercises and combined programme. The controlled
group ‘D’ followed the daily routine. The performance of subjects in
AAPHERD health related physical fitness test was recorded prior and
after the experimental period.

To establish the comparative effect of the yogic practices,
exercises and health related physical fitness, the data were examined
by applying analysis of co-variance. The level of significance was set
at 0.05 level.

The data were examined by applying analysis of co-variances
(ANCOVA Test) with regard to three experimental groups and one
control group to find out the inter group variability to allow for the
comparison between initial and final scores and to effect adjustments
in final on terminal scores which allowed for difference in some initial
variables.

The subjects of three experimental groups and control group were
selected randomly and were not equated with reference to the factor
examined. Hence the differences between the initial mean of the
groups at pretest had to be taken into account during analysis of the
post test differences between the means by process of application of
analysis of covariance where the final means were adjusted for
differences in the initial mean and the adjusted means were tested for significance.

It is evident that there is significant difference in pre and post test mean values of sit-ups, cardio-respiratory endurance, sit & reach, body composition (triceps skin fold) and body composition (subscapular skin fold) for yogic practice, combined group and no significant differences were observed in the control group.

F ratio for sit-ups test is 1.56, which was not significant in case of pre-test. Means indicating that initial means differences among the group were not significant. The post test means and the difference between the adjusted final means yielded the F ratio of 11.84 and 54.36 respectively and were found significant. The F ratio needed for significant at .05 level of confidence was 2.74.

The Analysis of co-variance for Cardio-respiratory indicated that the resultant F ratio of 1.82 was not significant in case of pre-test. Means indicating that initial means differences among the group were not significant. The post test means of the entire four groups yielded an F ratio of 18.68 which was significant. The differences between the adjusted final means for four groups were found significant as the obtained F ratio was 17.53, tabulated F ratio being 2.74.
The Analysis of co-variance for Sit & Reach test showed that the resultant F ratio of 0.29 was not significant in case of pre-test. Means indicating that initial means differences among the group were not significant. The post test means and the difference between the adjusted final means yielded the F ratio of 2.95 and 32.87 respectively and were found significant. The F ratio needed for significant at .05 level of confidence was 2.74.

The Analysis of co-variance for Body composition test (triceps skin fold) indicated that resultant F ratio of .48 was not significant in case of pre-test. Means indicating that initial means differences among the group were not significant. The post test means of the entire four group yielded of F ratio 0.71 which was also not significant. The difference between the adjusted final means for four groups were found significant as the obtained F ratio was 17.69, tabulated F ratio being 2.74.

The Analysis of co-variance for Body composition test (Subscapular skin fold) indicated that resultant F ratio of .48 was not significant in case of pre-test. Means indicating that initial means differences among the group were not significant. The post test means of the entire four group yielded of F ratio 0.71 which was also not
significant. The differences between the adjusted final means for four
groups were found significant as the obtained F ratio was 30.28. The F
ratio needed for significance at .05 level of confidence was 2.74.
CONCLUSIONS

Based on the understanding after deliberate discussion with experts and the supervisor and also in light of the above understanding following conclusions were finally drawn:-

1. There is significant difference in pre and post test mean values of sit-ups test for yogic practices, exercise and combined group as the obtain t-values are 6.43, 12.48, 16.45 respectively at .05 level of significance.

2. There is significant difference in pre and post test mean values of Cardio-respiratory Endurance for yogic practices, combined group as the obtain t-values are 10.56, 11.5, 15.6 respectively at .05 level of significance.

3. There is significant difference in pre and post test mean values of sit & reach test for yogic practices, combined group as the obtain t-values are 14.52,-11.55 and -14.81 at .05 level of significance.

4. There is significant difference in pre and post test mean values of Body composition (triceps skin fold) for yogic practices, combined group as the obtain t-values are 5.41, 5.76 and 9.12 respectively at .05 level of significance.
5. There is significant difference in pre and post test mean values of body composition (subscapular skin fold) for yogic practices, combined group as the obtain t-values are -4.64, -9.31, and 11.28 respectively at .05 level of significance.

6. The post test means of sit-ups and the difference between the adjusted final means yielded the F ratio of 11.84 and 54.36 respectively and were found significant.

7. The post test means of the entire four groups for cardio-respiratory endurance yielded an F ratio of 18.68 which was significant. The differences between the adjusted final means for four groups were found significant as the obtained F ratio was 17.53, Tabulated F ratio being 2.74.

8. The post test means and the difference between the adjusted final means of sit & reach yielded the F ratio of 2.95 and 32.87 respectively and were found significant. The F ratio needed for significant at .05 level of confidence was 2.74. The post test means of all the four groups yielded of F ratio 0.71 which was also not significant. The difference between the adjusted final means of body composition (triceps skin fold) for four groups
were found significant as the obtained F ratio was 17.69, tabulated F ratio being 2.74.

9. The post test means of the entire four group yielded F ratio 0.71 which was also not significant. The differences between the adjusted final means of body composition (sub-scapular skin fold) for four groups were found significant as the obtained F ratio was 30.28. The F ratio needed for significance at .05 level of confidence was 2.74.

10. It is concluded that yogic and exercise programmes significantly improve the health related physical fitness.

11. The yogic programme is more effective than exercise programme in the health related physical fitness.

12. A combined exercise yogic programme is more effective in health related physical fitness than the individual programmes of yoga and exercise.
RECOMMENDATIONS

In the light of the result, the following recommendations are made:

1. An investigation may be made whether any other technique, effect the health related physical fitness.

2. The experiment may be repeated with subjects which passes high standard of performance in health related physical fitness.

3. Same study may be repeated with female subjects to find out the effect of sex factor on this study.

4. A similar investigation may be done to see whether practice of certain yogic practices and exercise effect the motor and physical fitness components.

5. Same study may be repeated to find out the effect on motor and physical fitness.